

## FUEL CELL HUMIDIFIER

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### Abstract of JP8138705

**PURPOSE:** To prevent drop in power generating capability of a fuel cell by preventing drop in humidifying function caused by hydrogen gas penetrating from a gas flow path side to a water flow path side through a porous film. **CONSTITUTION:** A hydrogen gas humidifier 20 is constituted with a porous film 21, a catalyst reaction layer 22 formed on its one side surface, and separators 24 which interpose the porous film 21 and the catalyst reaction layer 22 from both sides and form a hydrogen gas flow path 23p and a water flow path 24p respectively. The catalyst reaction layer 22 is formed by dispersing and attaching carbon particles 22b on which platinum 22a is carried on one side surface of the porous film 21. Water in the water flow path 24p permeates the porous film 21 and the catalyst reaction layer 22 according to the difference between the pressure of water flowing in the water flow path 24p and the pressure of hydrogen gas 23p flowing in the hydrogen gas flow path 23p. Hydrogen gas reversely flows from the hydrogen gas flow path 23p side to the catalyst reaction layer 22 through the porous film 21, and the permeated hydrogen gas reacts with oxygen dissolved in water by the action of the platinum 22a and disappears.

